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Eagle Point Solution to a Frequently Asked Question

How to Insert Georeferenced Images

Summary:
This document explains the process of inserting georeferenced images and creating Digital Elevation Model contours for site planning.

Product: Eagle Point Software™ 2001
Release: 2001 Q4 or 1.4.0 and greater
Platform: All
Related documents:

As always, should you have any questions regarding any phase of installation, contact Eagle Point Technical Assistance at (800) 477-0909.

Notation Method

Button to Press *Displayed Text* **Icon** Action {Text to Enter} *Menu Item…*

Inserting Georeferenced Images

Insert an Ortho photo first and a USGS map second.

1. In AutoCAD, click on the **Layer Manager Icon**.
2. Set the *1.Doqs* layer to current for Ortho photos or *1.Drgs* for USGS maps.
3. Click OK close out of Layer Manager.
4. From AutoCAD, click *Map… Image… Insert…*.
5. Browse to the image file, which is usually located in the G: drive (geodata). E.g. *G:\doqqs\highlandvilleNE.tif*. DOQ photos by quarter quadrangle name. USGS drgs by lat/long/row/column name. *G:\drgs\43093\o43093c7.jpg.*
6. Checkmark Modify Correlation.
7. Click Open.
8. Pull down Units for Insertion Point to *Meters*.
9. Click OK.
10. For USGS drgs: Select the image. Right click. Click *Properties*. Pull down transparency to *Yes*. Click transparency color …. Click Select <. Select the color in the image that you want to make transparent. Click OK.

Displaying a Limited Portion of an Image

1. In AutoCAD, select the image.
2. Pull down *Modify… Clip… Image…*.
3. Input {N} for New. Press Enter.
4. Input {R} for Rectangular. Press Enter.
5. Click Upper left corner of your planned image display.

6. Click Lower right corner of your planned image display.
    - If image is on top of objects: Select the image. *Click Tools… Display Order… Send to back…*.

Preparing the Surface Model Settings of a Digital Elevation Model

A Digital Elevation Model (DEM) is a good planning tool. It is based on points located every 30 meters in a grid.

1. From AutoCAD, click *NRCS/EP… Create Contours… Manage Surface Model…*.
2. Click the **New Surface Model Icon**. This brings up New Surface Model box.
3. Click on the **Library icon** (looks like books on a shelf) and select the *Digital Elevation Model* surface model. Click Load Prototype. Click Yes. Click Close.
4. Input a Description name. E.g. {DEM}, which would represent original ground.
5. Once you have settings done click OK.
6. Click Close to close out Manage Surface Models.

Draw a Boundary for the DEM Surface Model

If you want a limited area for the DEM surface model to be created, create a boundary.

1. In AutoCAD, click on the **Layer Manager Icon**.
2. Set the *1.Brdr* layer to current.
3. Click OK close out of Layer Manager.
4. Click **Polyline** and draw a border around the area being planned. To close the line cleanly, type {C} and press Enter.

Creating a Surface model for a DEM

1. From AutoCAD, click *NRCS/EP… Create Contours… Triangulate Surface Model…*.
1. Pull down the name. E.g. *DEM*.
2. Pull down to set boundary line to *Select* if you are using a boundary to limit the area used for the DEM.
3. You will probably not want to *Display Model* or *Place Triangles* because of the large area of the DEM.
4. Checkmark Use External Point Files.
5. Click Build File List.
6. Click New External File.
7. Browse to the file name: E.g. *G:\IaDEM\43093\o43093c7.txt*.
8. Pull down X,Y,Z, Description.
9. Click OK.
10. Click Close.
11. Click Apply.
12. The external data points will be used. Usually no CAD objects will need to be selected. Press Enter.
13. If you have chosen to use a boundary, the command line should now ask you to select boundary. Select boundary by clicking with your mouse the border.
14. Click Close on the Triangulate Surface Model.

Placing the Contour Lines into CAD

1. From AutoCAD, click *NRCS/EP… Create Contours… Make Intermediate & Index…*.
2. Click Settings and verify or change the contour interval. Recommended settings: Smoothing {0}, Polynomial {0}, Intermediate {4}, Index {20}, Construction Method *LWpolylines*. Changing these can increase processing time excessively. Click OK.
3. Usually no checkmarks are place in any of the boxes.
4. Click Apply. Contours will appear in CAD.
5. Click Close.
6. Review the contours.

Submitted by Norman Friedrich.